

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A power source device comprising:

a transformer having a first winding and a second winding;

an oscillator self-oscillating with using the first winding of the transformer, and supplying an oscillating voltage to the first winding, the transformer generating an alternating current (AC) voltage at the second winding responsive to the oscillating voltage supplied from the first winding;

a rectifier for converting the AC voltage output from the second winding into a direct current (DC) voltage, and outputting the DC voltage;

first and second output terminals for outputting the DC voltage output from the rectifier; and

a discharge diode connected between the first and second output terminals of the rectifier so that a polarity of the discharge diode is reverse to a polarity of the DC voltage,

wherein the discharge diode conducts in only one direction independent of the DC voltage across the first and second output terminals, and

wherein the first and second output terminals are connected with a load charged with an electric charge having a polarity reverse to the polarity of the DC voltage.

2. (Currently Amended) The power source device according to claim 1, further comprising a Zener diode connected between the discharge diode and the rectifier.

3. (Original) The power source device according to claim 1, wherein the rectifier comprises a voltage multiplier rectifier.

4. (Currently Amended) An apparatus comprising:

a load charged with an electric charge; and

a power source device including

a transformer having a first winding and a second winding,

an oscillator self-oscillating with using the first winding of the transformer, and supplying an oscillating voltage to the first winding, the transformer generating an alternating current (AC) voltage at the second winding responsive to the oscillating voltage supplied from the first winding,

a rectifier for converting the AC voltage output from the second winding into a direct current (DC) voltage, and outputting the DC voltage,

first and second output terminals for outputting the DC voltage output from the rectifier and connected to the load, and

a discharge diode connected between the first and second output terminals of the rectifier so that a polarity of the discharge diode is reverse to a polarity of the DC voltage,

wherein the discharge diode conducts in only one direction independent of the DC voltage across the first and second output terminals, and wherein the electric charge of the load has a polarity reverse to the polarity of the DC voltage.

5. (Currently Amended) The apparatus according to claim 4, wherein the power source device further includes a Zener diode connected between the discharge diode and the rectifier.

6. (Original) The apparatus according to claim 4, wherein the rectifier comprises a voltage multiplier rectifier.

7. (Currently Amended) The power source device according to claim 1, wherein

the rectifier includes a rectifier diode, and

a forward voltage of the discharge diode is lower than a forward voltage of the rectifier diode.

8. (Currently Amended) The power source device according to claim 2, wherein

the rectifier including a rectifier diode, and

a forward voltage of the discharge diode is lower than a forward voltage of the rectifier diode.

9. (Currently Amended) The power source device according to claim 2, wherein a Zener voltage of the Zener diode is higher than a forward voltage of the discharge diode.

10. (Currently Amended) The power source device according to claim 9, wherein

the rectifier includes a rectifier diode, and

the forward voltage of the discharge diode is lower than a forward voltage of the rectifier diode.

11. (Currently Amended) The power source device according to claim 3, wherein

the rectifier includes a rectifier diode, and

the forward voltage of the discharge diode is lower than a forward voltage of the rectifier diode.

12. (Currently Amended) The apparatus according to claim 4, wherein

the rectifier includes a rectifier diode, and

a forward voltage of the discharge diode is lower than a forward voltage of the rectifier diode.

13. (Currently Amended) The apparatus according to claim 5, wherein

the rectifier includes a rectifier diode, and

a forward voltage of the discharge diode is lower than a forward voltage of the rectifier diode.

14. (Currently Amended) The apparatus according to claim 5, wherein a Zener voltage of the Zener diode is higher than a forward voltage of the discharge diode.

15. (Currently Amended) The apparatus according to claim 14, wherein

the rectifier includes a rectifier diode, and

the forward voltage of the discharge diode is lower than a forward voltage of the rectifier diode.

16. (Currently Amended) The apparatus according to claim 6, wherein

the rectifier includes a rectifier diode, and

the forward voltage of the discharge diode is lower than a forward voltage of the rectifier diode.